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Set	Items	Description
S1	266593	WHEAT OR TRITICUM OR AESTIVUM
S2	3089294	GENETIC? OR MICROSATELLITE? OR MARKER? OR RFLP?
S3	33160	S1 AND S2
S4	7429100	PY>1994
S5	24040	S3 NOT S4
S6	91211	(GENETIC? (2N) MARKER?) OR MICROSATELLITE? OR RFLP?
S7	780	(S6 AND S1) NOT S4
S8	259300	WHEAT OR AESTIVUM
S9	744	S8 AND S6 NOT S4
S10	89400	(GENETIC? (1N) MARKER?) OR MICROSATELLITE? OR RFLP?
S11	733	S10 AND S8 NOT S4
S12	389721	PCR OR PRIMER? OR (POLYMERASE (W) CHAIN)
S13	66	S11 AND S12
S14	41	RD (unique items)

(FILE 'HOME' ENTERED AT 07:09:39 ON 20 JUL 2001)

20 FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE, GENBANK' ENTERED AT 07:10:00 ON
JUL 2001

L1	190	S	GENOTYP?	(W)	PLANT?
L2	3	S	L1	(P)	(TRITICUM(W)AESTIVUM)
L3	0	S	L1	(P)	TRITICEAE
L4	1	S	L1	(P)	AMPLIF?
L5	25856	S	GENOTYP?	(P)	PLANT?
L6	633	S	L5	(P)	AMPLIF?
L7	2	S	L6	(P)	(MICROSATELLITE (W) LOCUS)
L8	0	S	L6	(P)	(REPEAT (W)DINUCLEOTIDE?)
L9	2	S	L6	(P)	(SIZE(W)FRACTION?)
L10	9	S	L6	(P)	(CHROMOSOM?(W)DNA)

L10 ANSWER 9 OF 9 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.

AN 96045535 EMBASE

DN 1996045535

TI Conservation of the 2,4-diacetylphloroglucinol biosynthesis locus among fluorescent *Pseudomonas* strains from diverse geographic locations.

AU Keel C.; Weller D.M.; Natsch A.; Defago G.; Cook R.J.; Thomashow L.S.

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SO Applied and Environmental Microbiology, (1996) 62/2 (552-563).

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037 Drug Literature Index

046 Environmental Health and Pollution Control

LA English

SL English

AB The broad-spectrum antibiotic 1,4-diacetylphloroglucinol (PHL) is a major determinant in the biological control of a range of **plant** pathogens by many fluorescent *Pseudomonas* spp. A 4.8-kb **chromosomal DNA** region from *Pseudomonas fluorescens* Q2-87, carrying PHL biosynthetic genes, was used as a probe to determine if the PHL biosynthetic locus is conserved within PHL-producing *Pseudomonas* strains of worldwide origin. The *phl* gene probe hybridized with the genomic DNA of all 45 PHL-producing *Pseudomonas* strains tested, including well-characterized biocontrol strains from the United States

and

Europe and strains isolated from disease-suppressive soils from Switzerland, Washington, Italy, and Ghana. The PHL producers displayed considerable phenotypic and **genotypic** diversity. Two phenotypically distinct groups were detected. The first produced PHL, pyoluteorin, and hydrogen cyanide and consisted of 13 strains from almost all locations sampled in the United States, Europe, and Africa. The

second

produced only PHL and HCN and consisted of 32 strains from the U.S. and European soils. Analysis of restriction patterns of genomic DNA obtained after hybridization with the *phi* gene probe and cluster analysis of restriction patterns of **amplified** DNA coding for 16S rRNA (ARDRA) and randomly **amplified** polymorphic DNA (RAPD) markers indicated that the strains that produced both PHL and pyoluteorin were genetically highly similar. In contrast, there was more diversity at the **genotypic** level in the strains that produced PHL but not pyoluteorin. ARDRA analysis of these strains indicated two clusters

which,

on the basis of RAPD analysis, split into several subgroups with additional polymorphisms. In general, the occurrence of phenotypically

and

genotypically similar groups of PHL producers did not correlate with the geographic origin of the isolates, and highly similar strains could be isolated from diverse locations worldwide.